

logical study of the autograft bone tissue 4 months after conventional and tunneling bone grafting indicates that the bone autograft is intimately connected with the native bone tissue and there is not border between these tissues. This phenomenon can be explained by the beneficial effect of this diamond micro-saws invasion in the bone tissue, which has a positive effect on the process of bone autograft osteoregeneration.

Conclusions. The «MicroSaw» technique and Tunneling Technique have positive effect on postoperative healing of soft and bone tissue. Using Tunnel Technique and «MicroSaw» Technique reduces surgery time and makes the results more predictable.

ANATOMY MENTORING PRACTICE AS A NEW PROMISING WAY FOR TEACHING MORPHOLOGICAL SCIENCE

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Key words: mentoring practice, novel teaching strategies, mentor, anatomy teaching

Background. Traditionally, the anatomy of human body as the university course is associated with the number of complexities in the 1st year students. Pupils' decreased attentiveness in the period of adaptation for student's life causes the necessity for novel teaching strategies in anatomy.

Aim. Thus, our study considers the benefits and drawbacks of new mentoring practice in Sechenov University.

Results and Discussion. Modern mentoring practice in anatomy department implies mentors teaching their coeval through education plan. The mentors are the most talented and motivated 1st year student with excellent marks during the first term-time. There are no special requests for students who will being trained; therefore, everyone could be taught within this type of program. Twenty chosen educators elaborate lesson plan in a special block of themes, and two testing controls both for student's knowledge assessment and collecting statistics. Our intermediate results received during 2017–2018 academic years show the increased marks in five taught groups from medical, pediatrics, and foreign students' faculties. Furthermore, all the mentors from scientific faculty demonstrate great individual advancement.

Conclusions. Now we're going to collect and analyze examination results from 13 June till 12 July for database and its further comparison with the similar ones. However, we're convinced that our novel mentoring experience becomes necessary for all the

student to recognize the responsibility for not's only their own education, but both for qualify teaching their coeval. Finally, this unusual experience will foster awareness of student leadership attributes.

FUNCTIONAL ANATOMY OF THE CEREBRAL CORTEX: FROM BRODMANN CONCEPT TO 3D MULTIMODAL MAPS

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Key words: 3D multimodal map, neurovisualisation, neurovisualising methods, brain mapping

Background. In 1909, K. Brodmann have characterized 52 different areas in the cerebral cortex. For many years, neurologists and neurosurgeons have been using this map for working. However, the cortical architecture is more heterogeneous. Modern techniques of neurophysiological control allow expanding our knowledge in brain field organization.

Aim. To investigate modern data of cortical cyto-, myelo- and mesoarchitectonic organization using new neurovisualizing methods.

Material and Methods. Analysis of primary sources, reviews and dissertations, as well as articles from the Medline and Scopus databases over the past 20 years.

Results and Discussion. We consider cyto- and myeloarchitecture for defining 3D multimodal map in contrast to Brodmann brain map. New applications like Micro-optical sectioning tomography, optical coherence tomography, immunohistochemistry, receptor autoradiography — these new applications combining with computational techniques allow understanding multiple levels of brain organization.

Conclusions. Brodmann's pioneered map is essential different from the current data. Thus, the letter confirms the hypothesis of cortical multi-level organization. This issue is not elucidate enough in Russian literature that must the preconditions for new research.

TENDINOUS INTERCONNECTIONS OF THE HAND FLEXORS

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Key words: hand, tendinous interconnections, flexor pollicis longus, flexor digitorum superficialis, flexor digitorum profundus

The thumb has one (flexor pollicis longus), while the other fingers have 2 flexor tendons (flexor digitorum superficialis and profundus). Interconnections of these tendons occur in about 20% of the general population and could be tendinous or tendon sheath

connection of variable size. The level of the interconnection may be different: in the hand, wrist or forearm. An interconnection between flexor pollicis longus and flexor digitorum profundus is named Linburg—Comstock variation. This variation often involves the flexor digitorum profundus of the index finger and on clinical examination is characterized by a simultaneous flexion of the forefinger during the active flexion of the thumb. The tendinous interconnections between flexor digitorum superficialis and flexor digitorum profundus are also frequent, especially between flexor digitorum superficialis of the little finger and adjacent fingers. Presence of the tendinous interconnections is asymptomatic in most of cases but sometimes they may limit precise movements of the involved fingers, may cause career-threatening disabilities or could complicate some hand injuries. In some patients tendinous interconnections can cause pain and swelling in the palmar aspect of the hand and wrist, tenosynovitis or carpal tunnel syndrome.

PREVALENCE OF THE PALMARIS LONGUS AND ITS IMPACT ON GRIP STRENGTH

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Key words: forearm, palmaris longus muscle, muscle absence, grip strength

Background. Palmaris longus muscle is the muscle of the anterior compartment of the forearm. Its contraction helps the flexion of the wrist and thumb abduction. It is often used in reconstructive surgery of the hand, eyelids and lips. This is one of the most variable muscles in our body. The purpose of this study was to determine the frequency of the palmaris longus muscle and its effect on the grip strength in examinees.

Material and Methods. The research was performed on 100 males and 100 females, average age of 19.46 years. Presence of the palmaris longus muscle was tested with standard and additional clinical tests, while the grip strength was tested with electronic manual dynamometer.

Results and Discussion. Bilateral presence was found in 132 (66%) subjects. Unilateral absence was found in 32 (16%) subjects, while bilateral absence in 36 (18%) subjects. Bilateral absence was noted in 12% in females and 24% in males. Unilateral absence on the left side was observed in 11% of women and 10% of men, while unilateral absence on the right side was equal in both genders (8%). The average value of the grip strength on right side was 40.77 ± 11.60 kg and 38.43 ± 10.93 kg on left side.

Conclusions. Compared to the unilateral, bilateral absence was more prevalent. Unilateral absence was significantly more present in the left forearm. In males, bilateral absence was statistically higher compared to the unilateral absence. Muscle absence in the left forearm was significantly more frequent compared to the right forearm. In females, there were no statistically significant differences between bilateral or unilateral absence. Bilateral absence was significantly more frequent in males. According to the results of this study grip strength of the hand was not affected in the case of palmaris longus absence in both genders.

CYTOMORPHOLOGICAL FEATURES OF THE CONTENTS OF PERIODONTAL POCKETS OF PATIENTS WITH PERIODONTITIS IN FRACTURES OF THE LOWER JAW

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Key words: cytomorphological features, periodontal pockets, periodontitis, fracture of the lower jaw

Aim. To study the cytomorphological features of the contents of periodontal pockets of patients with periodontitis in fractures of the lower jaw.

Material and Methods. Thirty patients with periodontitis combined with fractures of the lower jaw were examined, who underwent traditional treatment using dental splints for immobilization of fragments of the jaws.

Results and Discussion. The patients revealed cytomorphological features in the contents of periodontal pockets. Among the cellular elements, mainly polymorphonuclear leukocytes were determined. Their number ($43.7 \pm 1.3\%$) was significantly higher than that of healthy people. The cytoplasm of most neutrophils was vacuolated, had a toxic granularity, degenerative changes in the form of fragmentation were observed in the nuclei, part of the cells were completely destroyed. Monocytes, lymphocytes, whose number was increased, were present in the studied preparations. In the cytograms there was a microbial flora, located mainly outside the cells and represented by cocci, fungal mycelium, leptotrix type filaments, chopsticks, less often — protozoa. In the patients examined, a decrease in the number of neutrophils in the state of phagocytosis was observed, and phagocytosis was often not completed. In the population of epithelial cells, an increase in the smears of epithelial cells, aggregated in the seams, as well as signs of destruction and dystrophy. There were cells with signs of degeneration, having vacuolization of the cytoplasm and nuclei, an increase in the